



RECEIVED  
DEC 31 2003  
TC 1700

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : **Confirmation No. 3465**  
Kahoru TSUJIMOTO et al. : Docket No. 2001\_0210A  
Serial No. 09/763,964 : Group Art Unit 1744  
Filed May 30, 2001 : Examiner K. Thornton

ANTI-MICROBIAL STERILIZER AND  
REFRIGERATOR HAVING IT

---

**REQUEST FOR RECONSIDERATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In view of the following remarks, reconsideration of the objections and rejections set forth in the Office Action of September 25, 2003, is respectfully requested.

As an initial matter, the Examiner has objected to the abstract of the disclosure due to an informality. In particular, the Examiner asserts that the Abstract contains legal phraseology, such as the term "comprises," and has required correction of this matter. However, the Examiner is requested to note that a substitute specification and abstract were submitted with the Amendment filed April 18, 2001, and it is submitted that the substitute abstract does not contain any legal phraseology and is in proper form according to current USPTO practice. Thus, the Examiner is respectfully requested to withdraw the objection to the disclosure.

The Examiner has rejected claims 1-16 as being unpatentable over the Fujita reference (USP 5,880,150) in view of the Kunze reference (USP 5,230,867). However, for the reasons discussed below, these rejections are respectfully traversed.

Independent claim 1 is directed to a sterilizer, independent claim 11 is directed to a refrigerator that comprises a sterilizer, and independent claim 12 is also directed to a refrigerator that comprises a sterilizer. The sterilizer of independent claims 1, 11, and 12 includes an *air-permeable capsule* encapsulating an anti-microbial material that includes a base ingredient and a volatile anti-microbial impregnated in the base ingredient. The air-permeable capsule is accommodated within a container having *ventilation apertures* provided in a surface thereof. A peelable film is then provided over the surface of the container having the ventilation aperture.

Due to the provision of an air-permeable capsule, the anti-microbial material does not need to be a solid block of material. In other words, the anti-microbial material can be a powder or a liquid encapsulated within the air-permeable capsule. Furthermore, because the capsule is accommodated within a container having ventilation apertures, the capsule is protected from damage or rupture by the container during use.

The Kunze reference discloses a fragrance dispensing cartridge including a housing 1, and a pad treated with an aromatic agent at the bottom of the housing 1. A membrane 3,13 is attached to the housing 1 so as to cover an upper surface of the pad 2, 12, and a removable seal 8 is then attached to the top of the housing 1 (in the first embodiment of Figure 2). The Examiner asserts that the Kunze reference teaches an arrangement in which an agent is “encapsulated in a permeable sleeve means, which is then contained in a container having a porous/permeable top.” However, it is submitted that the Kunze reference does not disclose or suggest *an air-permeable capsule* encapsulating anti-microbial material, *and* a container having *ventilation apertures* which accommodates the capsule. In contrast, the pad 2 appears to be a solid block of material arranged at the bottom of the housing 1 without being encapsulated within an air-permeable capsule. In this regard, as clearly illustrated in Figures 2 and 4 of the Kunze reference, the membrane 3, 13 merely covers an upper surface of the pad 2, and does not comprise a *capsule that encapsulates* the material of pad 2.

If, despite the above explanation, the Examiner still maintains that the membrane 3, 13 corresponds to the air-permeable capsule of the present invention, then it is submitted that the

Kunze reference does not disclose or suggest a container having *ventilation apertures* and which accommodates the capsule. In this regard, the Kunze reference explains that the seal 8 *prevents release* of the fragrance in the pad 2 between the manufacture and the time of use (i.e., when the seal 8 is removed) as explained in column 3, lines 17-19. Thus, the sealed 8 clearly does not contain ventilation apertures. Moreover, the Kunze reference also does not disclose that ventilation apertures are formed anywhere in the housing 1.

As explained above, it is submitted that the Kunze reference does not disclose or suggest a sterilizer that comprises an air-permeable capsule encapsulating anti-microbial material, *and* a container having ventilation apertures and which accommodates the capsule. In addition, the Fujita reference does not disclose or suggest an air-permeable capsule and a container having ventilation apertures as in the present invention. Therefore, one of ordinary skill in the art would not be motivated to modify or combine the references so as to obtain the invention recited in independent claims 1, 11, and 12. Accordingly, it is respectfully submitted that independent claims 1, 11, and 12, and the claims that depend therefrom, are clearly patentable over the prior art of record.

In view of the above remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicants' undersigned representative.

Respectfully submitted,

Kahoru TSUJIMOTO et al.

By: 

W. Douglas Hahm  
Registration No. 44,142  
Attorney for Applicants

WDH/asd  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
December 24, 2003